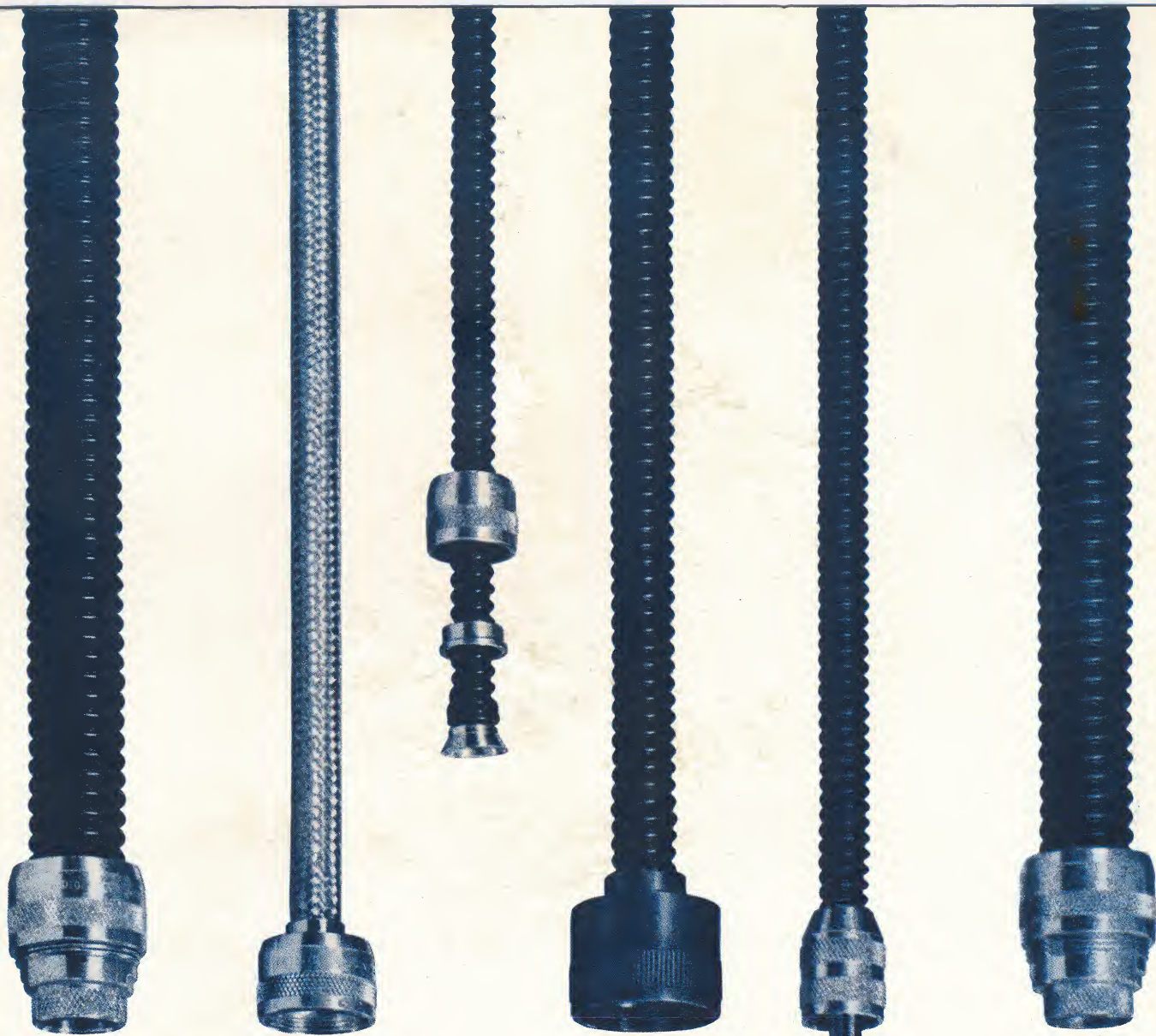
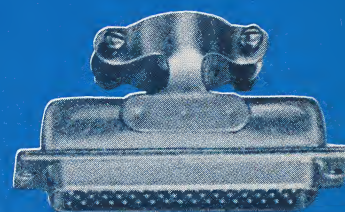
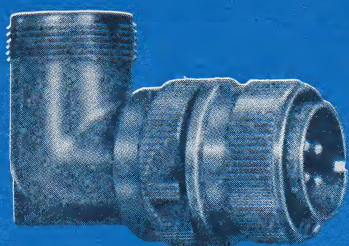
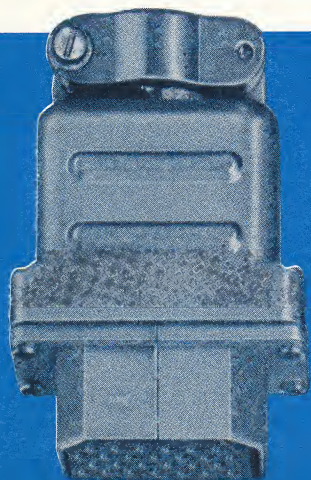


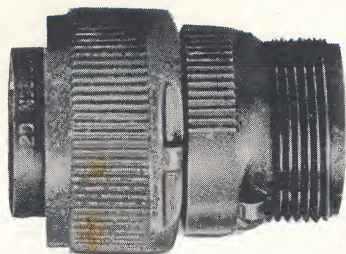


CONFLEX[®]

wiring systems



CONFLEX® — a totally new wiring system



Typical Circular Standard Connector

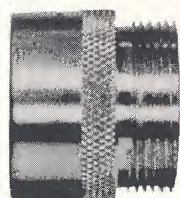


Inner Sleeve Adaptor

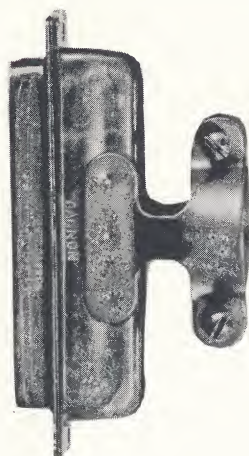
Teflon* and Vycore** convoluted tubing terminates directly to electrical connectors and adaptors with specially designed aluminum end-fittings



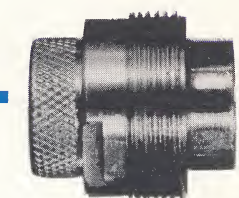
Typical Circular Miniature Connector



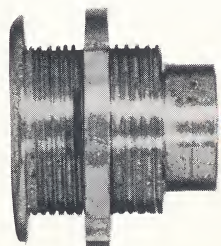
Connector Thread Adaptor



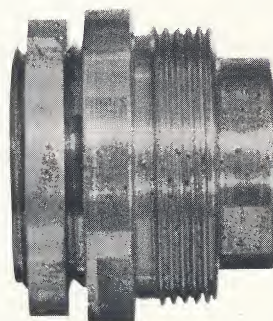
Typical Rack & Panel Connector



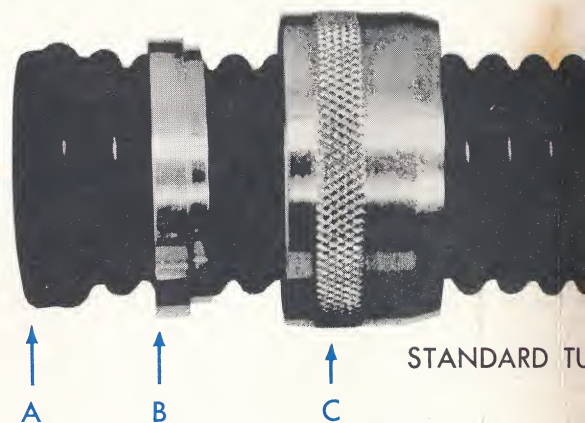
Clamping Adaptor



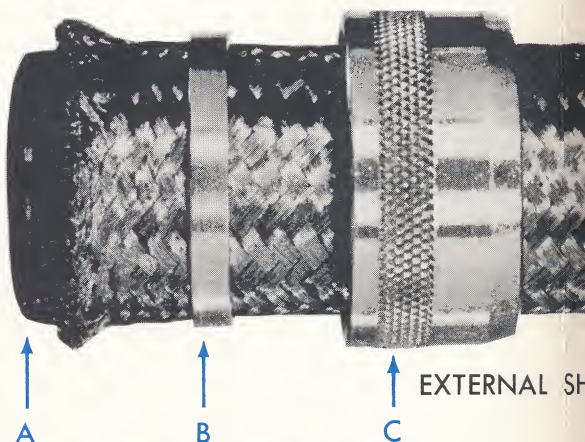
Panel Adaptor (Back Mounted)



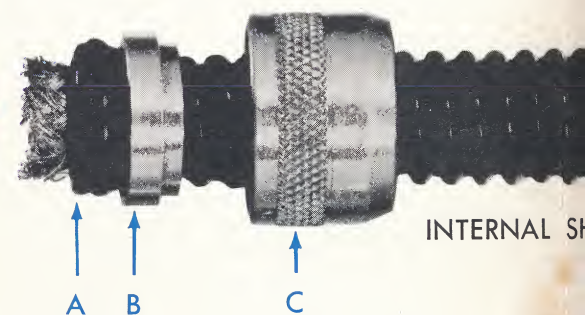
Panel Adaptor (Front Mounted)



STANDARD TUBING



EXTERNAL SHIELDING



INTERNAL SHIELDING

BASIC FITTINGS AND ADAPTORS

Basic Fittings are comprised of (A) Inner Ring (not visible in photos above); (B) Collar and (C) Coupling Nut. Used alone, or with adaptors, this group provides connection of CONFLEX tubing to circular

*tradename "TEFLON" refers to DuPont's fluorocarbon resin. **tradename "Vycor" refers to Corning's fused silica.

for harnessing electrical interconnections

CONFLEX is a unique and efficient system which offers marked advantages over other harnessing alternatives in terms of:

1. design opportunities
2. simplicity of assembly and installation
3. ease of maintenance and modification

Overall, CONFLEX Wiring Systems provide:

1. substantial weight reduction
2. increased reliability
3. extended life for the harness assembly
4. consequent cost reduction

DESIGN OPPORTUNITIES

CONFLEX introduces greater latitude and flexibility to the design engineer, enabling him to use many combinations of conductors while providing for both internal and external shielding. The attractive appearance of CONFLEX contributes to clean design, and is meaningfully enhanced by high reliability and ultimate cost reduction.

SIMPLE ASSEMBLY, INSTALLATION

CONFLEX harness can be prefabricated or built up on the job without use of a harness board. No expensive tools are required. Installation is extremely simple. To terminate to a permanently mounted connector or junction, the mating connector or adaptor on the CONFLEX harness is simply screwed onto the connector already in position.

Potting or encapsulation of connectors is not required; the metal end-fittings of the CONFLEX system form a tight mechanical seal at the rear of the connector, prohibiting moisture entrance and eliminating capillary moisture migration from insulation on the conductor to the face of the connector.

EASY MAINTENANCE, MODIFICATION

Inspection of the termination of conductors to connector is easily accomplished, simply by uncoupling the CONFLEX fitting and exposing the termination. Design modification can be made as readily. Low coefficient

of friction of CONFLEX materials facilitates adding or subtracting conductors in the conduit.

SUBSTANTIAL WEIGHT REDUCTION

Lightweight aluminum alloy CONFLEX end-fittings replace heavier diecast connector endbells. Because CONFLEX is a closed harness system, conductors can be of minimum cross-section with insulation appropriate to their electrical duty. Convolutions of CONFLEX tubing allow the wall thickness to be substantially less than standard tubing.

INCREASED RELIABILITY, EXTENDED LIFE

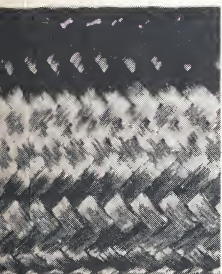
A CONFLEX system is pressure tight from one connector, through the conduit run, to every other connector in the system. Continuous seamless CONFLEX tubing eliminates danger of moisture entry or of disintegration. Danger of potting resin shrinkage, with resultant damage to individual conductors, is also eliminated. Verification of proper connector terminations is always possible, simply by uncoupling, inspecting, then recoupling the end-fittings to reseal the harness assembly. Increased reliability, as well as longer harness life, is gained from the positive mechanical connections of the CONFLEX system. Stress is taken from connector shell to connector shell, leaving individual conductors to lie freely within the conduit and to find their own position of minimum stress. Strain relief tapes can also be incorporated into a CONFLEX harness.

COST REDUCTION

Overall weight reduction; longer service life; and ease of assembly, installation, inspection and modification contribute to substantial cost reduction.



D TUBING



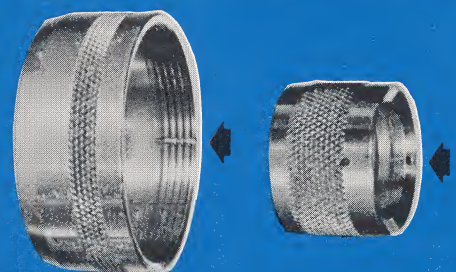
L SHIELD



L SHIELD

electrical connectors conforming to MIL-C-5015, Series Style A & B, K and KE, and to MIL-C-26482, Series Style A. Other fittings and adaptors provide connection to additional connectors, conforming to MIL specifications as shown on the back page.

"Vycore" refers to ICORE's chlorinated polyolefin modified polyvinylchloride.



Variations to fittings may be specified to obtain antivibration devices, locking wire holes, or a combination of both.

CLAMPING ADAPTORS

are used in conjunction with basic fittings and electrical connectors, primarily of the rack and panel type such as DPA, DPD, DPX, and D sub-miniature.

CONNECTOR THREAD ADAPTORS

allow for termination of CONFLEX tubing to both basic and extended range MARK II fittings, and to connectors designed to MIL-C-26482 with both solder and crimp connections.

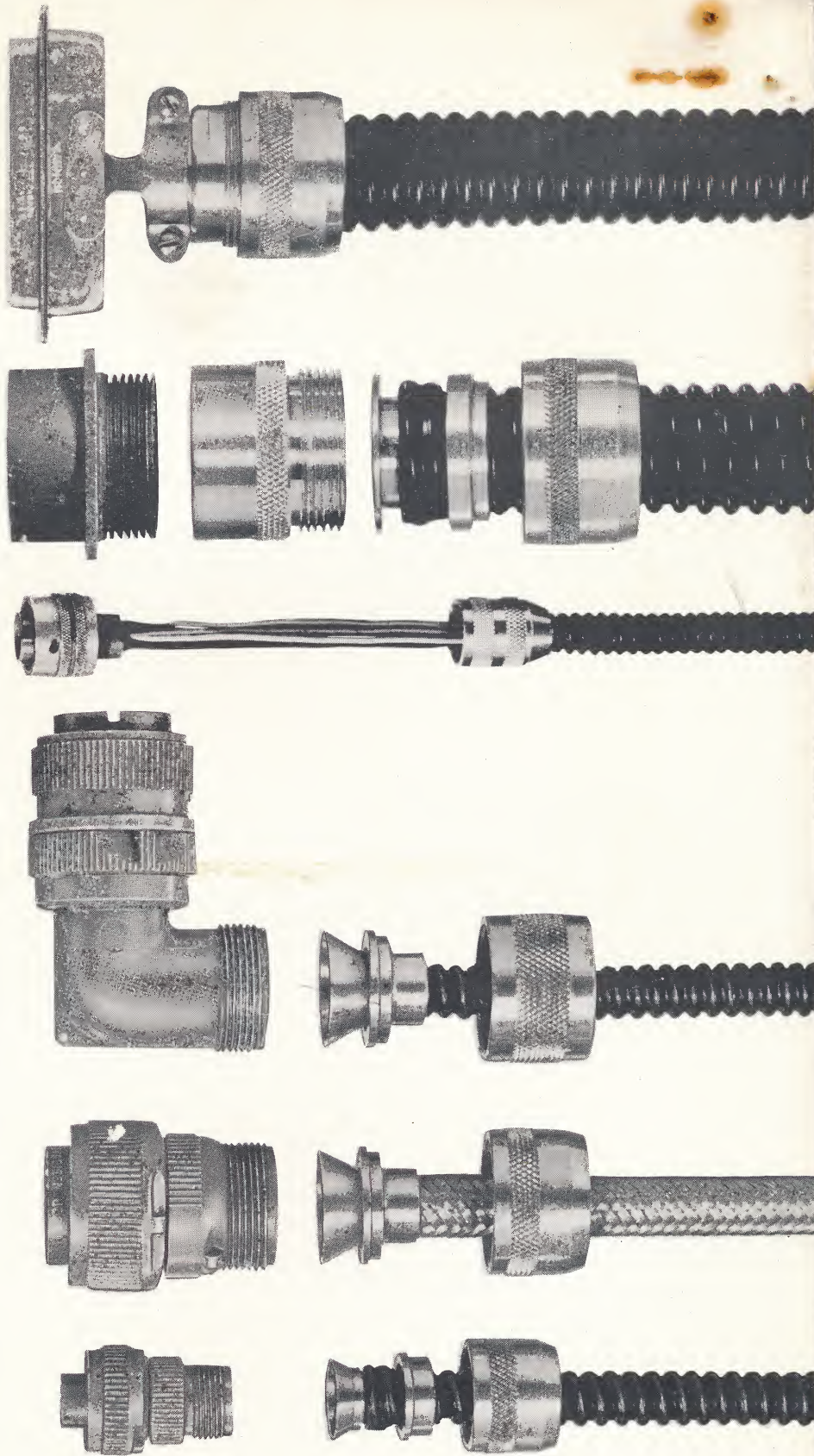
SPEC FITTINGS

provide termination of CONFLEX tubing to miniature circular connectors conforming to MIL-C-26482, accommodating both solder and crimp versions in Series Style E, SE, and F in Shell Styles 00, 01, and 06.

EXTENDED RANGE FITTINGS

cover the termination of CONFLEX tubing to circular electrical connector Shell Sizes 8S to 36 conforming to MIL-C-5015, Series Style A & B, K & KE, and connector Shell Sizes 8 to 24 of MIL-C-26482, Series Style A. This group of fittings is capable of being used over a wider range of conduit-to-connector shell sizes, and provides for the termination of CONFLEX tubing of a given size to a larger connector shell size.

Many additional CONFLEX combinations and special end-fittings are available. For information, and for application assistance, contact our Sales Engineering Department.



ICORE
ELECTRO-PLASTICS, INC.

a subsidiary of ICORE INDUSTRIES

680 E. TAYLOR AVENUE, SUNNYVALE, CALIFORNIA 94086 • TEL. (408) 739-2395 • TWX (408) 737-9910 • TELEX 346-431

Form I-601-8-66



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1050 KIFER ROAD • SUNNYVALE, CALIFORNIA 94086
Phone (408) 739-2395 • TWX (910) 339-9224 • TELEX 346431

T. NELSON, SYS. CONSULTANT

BOX 1546

POUGHKEEPSIE, NEW YORK 12603 R/M

CONFLEX WIRING SYSTEM

Thank you for your interest in . . .

The attached literature should give you the information you requested. If you have further questions about your specific requirements, they can be answered by:

┌ **ELECTRONIC CENTRAL**
P O BOX 74
NORTH WILBRAHAM, MASS.

413-596-6866

└

For Prices and ICORE'S Local Distributor's Name, please contact Representative listed on Cover Sheet.

Are Name and Address Correct?

T. NELSON, SYS. CONSULTANT

BOX 1546

POUGHKEEPSIE, NEW YORK 12603 R/B

CONFLEX WIRING SYSTEM

Product . . .

Please send additional information on ICORE Electro Plastics.

- | | |
|---|---|
| ☐ Insulating and Harnessing Materials | ☐ Air Dux® Inductor Coils |
| ☐ Conflex® Convoluted Tubing and Braid | ☐ _____ |
| ☐ Conflex® Fittings, Breakouts — Specify Connector _____ | |
| ☐ Please send me sample of _____ | |
| ☐ Immediate Application (2 Months) | ☐ Probable Application (2-10 Months) |
| ☐ General Reference Purposes | |
| ☐ Please have your Representative contact me. | |
| ☐ Call _____ | (Phone No. for Appointment) |

Signed _____



FIRST CLASS
Permit No. 294
Sunnyvale,
Calif.

BUSINESS REPLY CARD

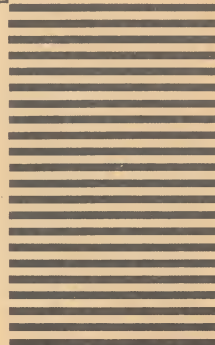
No Postage Necessary If Mailed In The United States

POSTAGE WILL BE PAID BY

ICORE ELECTRO PLASTICS INC.

1050 KIFER ROAD

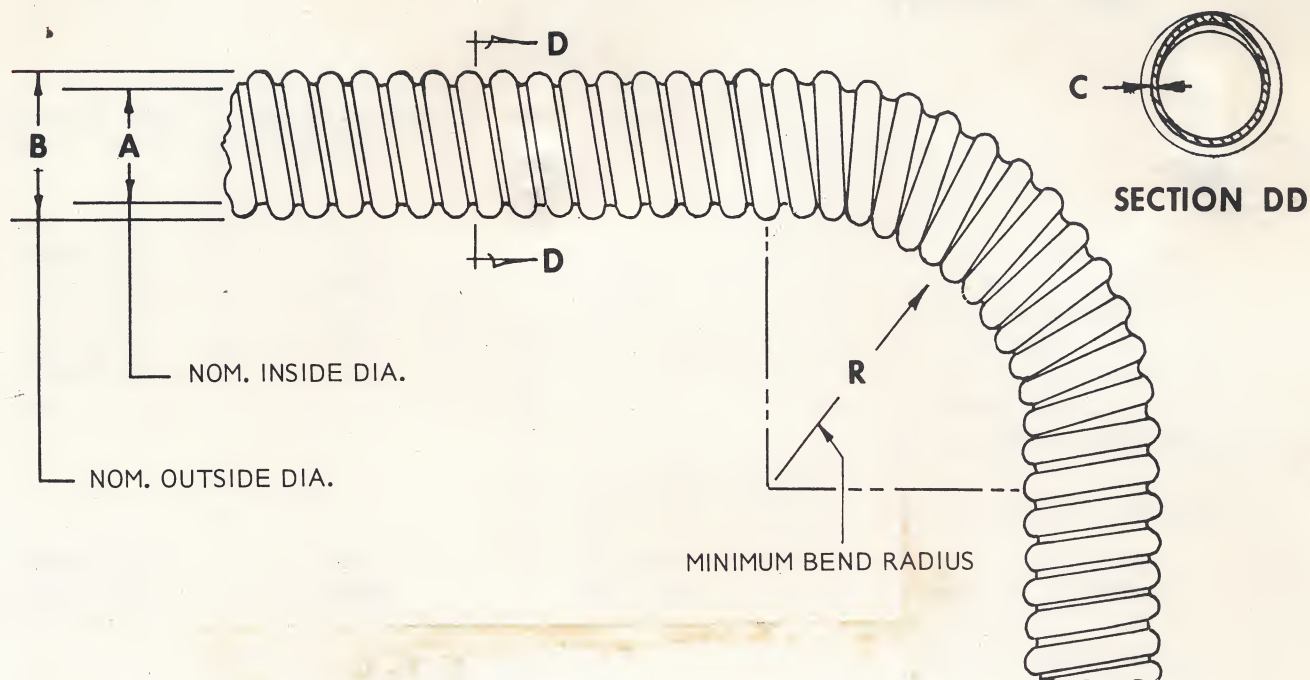
SUNNYVALE, CALIFORNIA 94086



Attn.: SALES DEPT.

CONFLEX®-Tubing

CFT-TEFLON



PART NO.	WEIGHT PER 100 FT. (LBS.)	DIMENSIONS IN INCHES				
		I.D. (A)		O.D. (B)	WALL Thickness (C)	BEND RADIUS (R*)
		NOMINAL	TOLERANCE			
CFT- 6	2	3/16	-.000 +.020	5/16	.021	1/2
CFT- 9	2.7	9/32	-.000 +.025	13/32	.025	3/4
CFT-10	3	5/16	-.000 +.025	7/16	.024	7/8
CFT-12	3.6	3/8	-.000 +.025	1/2	.026	1
CFT-16	5	1/2	-.000 +.030	5/8	.026	1-1/2
CFT-20	6.2	5/8	-.000 +.030	3/4	.027	1-3/4
CFT-24	8.7	3/4	-.000 +.030	29/32	.030	1-7/8
CFT-32	13	1	-.000 +.035	1- 3/16	.032	2-1/2
CFT-40	18.13	1-1/4	-.000 +.035	1-17/32	.035	3

*R=minimum radius bend -

Conflex loaded 75%-85% capacity with wire.
Supplied in random lengths of 14 to 20 feet.
Standard Color: Black



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ELECTRO-PLASTICS, INC.

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Form 1-603-2-67

CONFLEX®-Tubing

TYPICAL PROPERTIES CFT - TEFLON

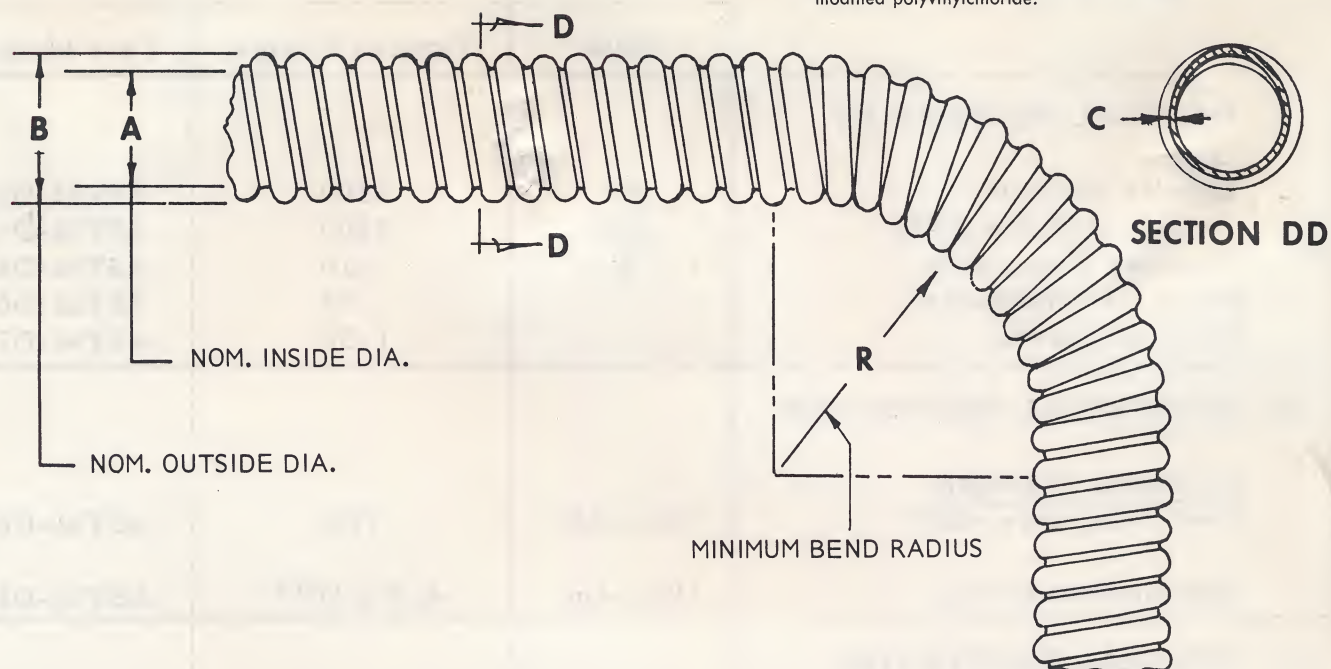
	UNITS	TYPICAL VALUES	TEST METHODS
I. PHYSICAL PROPERTIES			
Tensile Strength	psi	3300	ASTM-D412
Tensile Modulus 200%	psi	2500	ASTM-D412
Ultimate Elongation	%	260	ASTM-D412
Shore "A" Hardness		95	ASTM-D676
Specific Gravity		2.12	ASTM-D792
II. ELECTRICAL PROPERTIES			
<u>Dielectric Strength @ 60 cps</u>			
Original (Dry)	Volts/Mil	1100	ASTM-D876
Aged 96 hrs. (96% RH)	Volts/Mil	1050	ASTM-D876
III. THERMAL PROPERTIES			
Flame Resistance		Non Inflammable	ASTM-D876
<u>Suggested Operating Temperature Range</u>			
Maximum	°C	260	
	°F	500	
Minimum	°C	-70	
	°F	-95	
IV. CHEMICAL PROPERTIES			
<u>Fungus Resistance</u>			
		Does not support fungus growth	MIL-I-7444
<u>24 Hour Immersion @ 73° F</u>			
(a) ASTM Ref. Fuel B			
Tensile	psi	3000	ASTM-D412
Elongation	%	260	ASTM-D412
Shore "A" Hardness		94	ASTM-D676
(b) JP-4 Fuel			
Tensile	psi	2500	ASTM-D412
Elongation	%	250	ASTM-D412
Shore "A" Hardness		93	ASTM-D676
(c) Skydrol			
Tensile	psi	2500	ASTM-D412
Elongation	%	250	ASTM-D412
Shore "A" Hardness		94	ASTM-D676

* DuPont's TFE FLUOROCARBON RESIN

CONFLEX®-Tubing

CFV — Flexible Vycore

tradename "Vycore" refers to ICORE's chlorinated polyolefin modified polyvinylchloride.



PART NO.	WEIGHT PER 100 FT. (LBS.)	DIMENSIONS IN INCHES				
		I.D. (A)		O.D. (B)	WALL Thickness (C)	BEND RADIUS (R*)
		NOMINAL	TOLERANCE			
CFV-06	1.5	3/16	-.000 +.020	5/16	.026	1/2
CFV-09	2.5	9/32	-.000 +.025	13/32	.026	3/4
CFV-10	2.7	5/16	-.000 +.025	7/16	.026	7/8
CFV-12	3	3/8	-.000 +.025	1/2	.026	1
CFV-16	3.7	1/2	-.000 +.030	5/8	.026	1-1/2
CFV-20	5	5/8	-.000 +.030	3/4	.026	1-3/4
CFV-24	6	3/4	-.000 +.030	29/32	.030	1-7/8
CFV-32	9.5	1	-.000 +.035	1- 3/16	.030	2-1/2
CFV-40	11.1	1-1/4	-.000 +.035	1-17/32	.030	4

*R=minimum radius bend -

Conflex loaded 75%-85% capacity with wire.
Supplied in random lengths of 14 to 20 feet.
Standard Color: Gray



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Form I-602-2-67

CONFLEX[®]-Tubing

TYPICAL PROPERTIES

CFV — Flexible Vycore

	Units	Typical Values	Test Methods
I. PHYSICAL PROPERTIES			
Tensile Strength	psi	3200	ASTM-D412
Tensile Modulus 200%	psi	2400	ASTM-D412
Ultimate Elongation	%	310	ASTM-D412
Shore "A" Hardness		93	ASTM-D676
Specific Gravity		1.36	ASTM-D792
II. ELECTRICAL PROPERTIES			
<u>Dielectric Strength</u> Test Thickness .027"	Volts/Mil	760	ASTM-D876
Volume Resistivity	Ohm-Cm	4.0×10^{12}	ASTM-D257
III. THERMAL PROPERTIES			
Flame Resistance		Self Extinguishing	ASTM-D876
<u>Suggested Operating Temperature Range</u>			
Maximum	°C	105	UL Requirements*
	°F	221	
Minimum	°C	-24.4	
	°F	-12	ASTM-D746
IV. CHEMICAL PROPERTIES			
<u>Fungus Resistance</u>		Does not support fungus growth	MIL-I-7444
<u>24 Hour Immersion @ 73°F</u>			
(a) ASTM Ref. Fuel B			
Tensile	psi	1750	ASTM-D412
Elongation	%	330	ASTM-D412
Shore "A" Hardness		75	ASTM-D676
(b) JP-4 Fuel			
Tensile	psi	2800	ASTM-D412
Elongation	%	330	ASTM-D412
Shore "A" Hardness		93	ASTM-D676

*65% retention of elongation after seven days @ 136°C.